

Patent Abstracts of Japan

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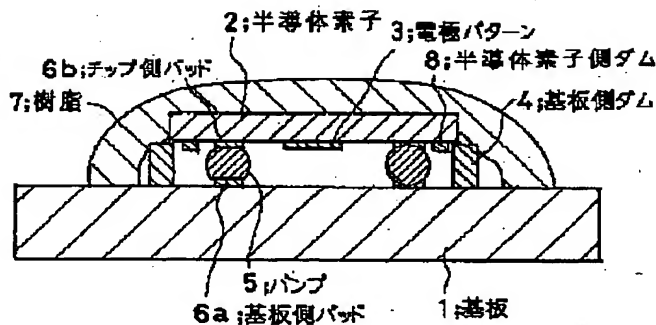
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TITLE : RESIN SEALING STRUCTURE OF FLIP
CHIP MOUNTING TYPE
SEMICONDUCTOR ELEMENT



ABSTRACT : PROBLEM TO BE SOLVED: To improve yield and increase resistance to vibration and shock, by flip chip mounting a semiconductor element having a dam on a substrate having a dam, forming a hollow structure between the semiconductor element and the facing substrate, and covering the semiconductor element with resin.

SOLUTION: A semiconductor element 2 on which a dam 8 is formed is flip chip mounted on a substrate 1 on which a dam 4 is formed. The semiconductor element side dam 8 is positioned inside the substrate side dam 4. The semiconductor element 2 is covered with resin 7. A gap between the substrate 1 and the semiconductor element 2 is turned into a hollow airtight structure. The semiconductor element 2 is flip chip mounted on the substrate 1, and a chip side pad 6b is bonded to a substrate side pad 6a via a bump 5. When a gap distance between the substrate 1 and the semiconductor element 2 is increased by the warp of the substrate 1 and the semiconductor element 2, resin 7 does not permeate and is prevented from coming into contact with an electrode pattern 3 on the semiconductor element 2 surface.

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